CLARIFICATION NUMBER CAO-00-028, REV. 1
ACCEPTABLE ANALYTICAL PERFORMANCE

ISSUE

1. Are methods judged to be performing unacceptably and is corrective action required (beyond flagging data) every time there is a matrix related QC failure? Tables B3-5, B3-7, and B3-9

2. Which MDL should be used to determine acceptance criteria for total VOCs, SVOCs and Metals laboratory blanks to ensure data comparability between generator sites? Tables B3-5, B3-7, and B3-9

3. What are the specific Acceptance Criteria for calibration blanks for total metals analyses? Table B3-9

4. Are all QC criteria in Tables B3-5, B3-7, and B3-9 included in the definition of completeness, including matrix dependent QC? B3-6--Completeness, B3-7--Completeness, B3-8--Completeness, and Tables B3-5, B3-7, and B3-9

5. Will CBFO allow the use of matrix spike duplicates in lieu of laboratory duplicates? B3-6--Precision, B3-7--Precision, and B3-8--Precision

6. What specific requirement should be used for surrogate evaluation? Tables B3-5 and B3-7

7. What are the CVAA and HGAA serial dilution acceptance criteria? Table B3-9

8. Does CBFO require, as stated in Tables B3-5, B3-7 and B3-9, that laboratory control samples meet a 80 – 120% requirement for percent recovery or is the 120% a typo? Tables B3-5, B3-7, and B3-9

CONCLUSION

1. Acceptable method performance is defined by results of QC parameters in Tables B3-5, B3-7, and B3-9 that are not influenced by sample matrix. Footnote a on each table specifies that “Nonconformances do not apply to matrix-related exceedence.” Repeated matrix-related QC failures may be an indication that the method is not adequate and will require an investigation.

2. Laboratory blank acceptance criteria are as follows:

   Table 3-5 for VOCs use Table 3-4 MDLs
   Table 3-7 for SVOCs use Table 3-6 MDLs
   Table 3-9 for Metals use Table 3-8 PRDLs

3. Use the appropriate SW-846 metals analytical method for determining calibration blank acceptance criteria and corrective actions.

4. Yes. If a sample with a matrix-related exceedence has been accepted as valid during review, the sample is a valid sample for calculation of completeness.

5. The permit allows matrix spike duplicates in lieu of laboratory duplicates.

6. Use the SW-846 methodology, until 30 samples, have been analyzed calculating %R only. Following analysis of the 30^{th} sample, calculate the three sigma value and use that combined with the average %R of the 30 samples for subsequent analyses evaluation of surrogates.

7. The CVAA and HGAA serial dilution acceptance criteria are to be taken from SW-846 Methods.

8. The WAP requirements are based on the acceptance criteria found in SW-846 for control samples in a clean matrix; therefore, the “120%” is not a typo.

DISCUSSION

1-7. Module II.C.1.b states the following:

> Waste characterization sampling and analytical methods - the Permittees shall require that generator/storage sites comply with the method requirements, quality control, equipment testing, inspection, maintenance, and equipment calibration and frequency standards for the procedures specified in Permit Attachment B1 (Waste Characterization Sampling Methods). For all analytical methods for waste analysis not otherwise specified in Permit Attachment B1, the Permittees shall require the generator/storage sites to use "*Test Methods for Evaluating Solid Waste,*

Physical/Chemical Methods", EPA Publication SW-846. Updates to EPA Publication SW-846 shall be incorporated into this permit by reference. Sites may use these new or revised methods once they have demonstrated that the results from the new methods will be at least equivalent to the results from the currently used methods.

Based on this, it is appropriate to apply the guidance in SW-846 for those requirements that are not dealt with specifically in the permit.

5. Sections B3-6, B3-7 and B3-8 address precision as follows:

Precision shall be assessed by analyzing laboratory duplicates or matrix spike duplicates, replicate analyses of laboratory-control samples, and PDP blind audit samples. Results from measurements on these samples must be compared to the criteria listed in Tables B3-4 (B3-6 & B3-8). These QC measurements will be used to demonstrate acceptable method performance and to trigger corrective action when control limits are exceeded.

6~~8~~. Laboratory Control Samples are prepared in the laboratory from similar but clean matrices and are used to verify that the laboratory can perform the analysis in a clean matrix. Laboratory analysis on clean, spiked matrices are considered to be “in control” if the results are within ±20% or ± 30% of the true value depending on the analyte categories.